REMARKS

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

Claims 1-20 are currently pending. No claims have been amended herewith.

In the outstanding Office Action, Claims 1-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,719,861 to Okanoue (hereinafter "the '861 patent") in view of U.S. Patent No. 6,304,556 to Haas (hereinafter "the '556 patent") and U.S. Patent No. 7,058,706 to Iyer et al. (hereinafter "the '706 patent"); and Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the '861 patent in view of the '706 patent.

STATEMENT OF SUBSTANCE OF INTERVIEW

Applicants wish to thank Examiner Murray and Primary Examiner Neurauter for the interview granted Applicants' representative on July 22, 2009, at which time the outstanding rejection of Claim 1 was discussed. During the interview, it was agreed that the claims (with respect to the address of the peripheral node not being stored in the node storage unit of the search node) appear to overcome the prior art of record. However, the Examiners indicated that further search and consideration would be required upon formal submission of a response to the outstanding Office Action.

RESPONSE TO ARGUMENTS

The Office Action acknowledges that the '861 patent fails to disclose "whether or not the address of the destination mode is stored in the originating node." Thus, it is respectfully submitted that the '861 patent fails to disclose the transmitting a node notice request packet step of Claim 1, the communication units of Claims 2 and 15, and the receiving the node

notice packet step of Claim 16. Rather, the Office Action simply asserts, in the Response to Arguments section, that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to not store the address of the destination node in the originating node, since it has been held that **omission of an element and its function** in a combination where the element is not desired involves only routine skill in the art. See *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989)."

Applicants respectfully traverse the assertion that although the '861 patent does not disclose "that the address of the destination node is not stored in the originating node," that it would nevertheless be obvious to one of ordinary skill in the art in view of *Ex parte Wu*. As a preliminary matter, it is noted that MPEP § 2144.04 provides that

> **if the facts** in a prior legal decision **are sufficiently similar to those in an application under examination**, the examiner may use the rationale used by the court.

As noted in the Office Action, the claims at issue in *Ex parte Wu* were directed to a method for inhibiting corrosion on metal surfaces using a composition consisting of epoxy resin, petroleum sulfonate, and hydrocarbon diluent. The Board affirmed the rejection in that case, holding that it would have been obvious to omit the polybasic acid salts (i.e., the element) of the primary reference where the function attributed to such salt is not desired or required, such as in compositions for providing corrosion resistance in environments which do not encounter fresh water. That is, in *Ex parte Wu*, the Board held that it would have been obvious **to omit both the element and its corresponding function**. The Board in *Ex parte Wu* did not hold that it would have been obvious to simply remove a function from an element, such as by not storing the address of a destination mode in an originating node.

In particular, it is noted that the Office Action does not propose to omit **both an element and its function** as in *Ex parte Wu*, i.e., the originating node and its corresponding function(s). Rather, the Office Action asserts that it would be obvious to have an originating

node (i.e., the element) that does not have a function of storing an address of a destination node. That is, the Office Action is applying a rationale (i.e., exclude a function from an element) that is different from the rationale applied in *Ex parte Wu* (i.e., exclude an element and its function), in that the Office Action is asserting that it would be obvious to keep the originating node but exclude, from the originating node, a storing function.

Accordingly, as the facts of the '861 patent are not sufficiently similar to those of the present application, and a rationale different from the rationale of the Board in *Ex parte Wu* is being applied, Applicants respectfully request that the rejections of independent Claims 1, 2, 15, and 16, which recite "the address of the peripheral node not being stored in the node storage unit of the search node" or "an address of the peripheral node not being stored in the node storage unit," be withdrawn.

Further, Applicants respectfully traverse the assertion in the Office Action that

> [w]hile Okanoue does not specifically disclose that the address of the destination node is not stored, neither does it disclose that it is stored. In either case the feature of not storing/storing the address is not functionally limiting (i.e., the system would function the same in either case) to transmitting the node notice packet from the peripheral node to the search node, in response to the node notice request packet.[1]

In particular, it is respectfully submitted that the system would not function the same in either case as asserted in the Office Action. For a non-limiting example, the claimed invention provides for the searching of new service nodes (e.g., a peripheral node having an address that is not stored in a search node). However, in the case that an address of the peripheral node is already stored in the search node, the peripheral node is already known to the search node such that a searching for new service nodes does not occur.

Accordingly, should the Examiner wish to maintain the rejections of the claims, it is respectfully requested that the Examiner provide references disclosing each limitation in

[1] See Office Action dated June 10, 2009, page 16.

every claim. Further, it is respectfully requested that these rejections specifically point out, such as by column and line number, where in each reference each limitation of the claims can be found.

REJECTION UNDER 35 U.S.C. § 103

Previously presented Claim 1 is directed to

> [a] node search method for searching for a new service node for providing a service to a mobile node, in a mobile communication system including a plurality of service nodes and the mobile node, each of the service nodes and the mobile node having a node storage unit configured to store addresses of service nodes, the node search method comprising:
>
> transmitting a node search packet to search for the new service node from a search node, which searches for the new service node, to a search packet reception node having an address stored in the node storage unit of the search node;
>
> transmitting a node notice request packet from the search packet reception node to a peripheral node having an address stored in the node storage unit of the search packet reception node, *the address of the peripheral node not being stored in the node storage unit of the search node;*
>
> returning a node notice packet from the search packet reception node to the search node, in response to the node search packet;
>
> *transmitting the node notice packet from the peripheral node to the search node, in response to the node notice request packet;*
>
> detecting the new service node based on the returned node notice packet from the peripheral node, by the search node;
>
> updating the node storage unit of the search node based on the new service node detected by the search node; and
>
> transmitting data for investigating node information from the search node to the detected new service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node.

Regarding the rejection of Claim 1 under 35 U.S.C. § 103(a), the Office Action asserts that the '861 patent discloses all the features of Claim 1, except "a mobile communication system or mobile nodes or transmitting data for investigating node information from the search node to the detected new service node, the data for investigating node information including a request for a delay value and a number of hops in a packet transmission between the search node and the detected new service node."[2]

The '861 patent is directed to an automatic route determination method. In particular, the '861 patent discusses a mesh-type network including nodes N1-N4 each having at least a routing protocol, wherein adjacent nodes N1 and N2 are connected through a simple element R1, the adjacent nodes N2 and N4 are connected through two simple elements R3 and R4, and the adjacent nodes N4 and N5 are connected through a simple element R5.[3] As discussed by the '861 patent, simple elements R1-R5 are network elements having no routing protocol, such as a repeater or a bridge.[4] Regarding the determination of a route between a source node and a destination simple element, the '861 patent discusses that **the source node broadcasts a TARP request including the ID of the destination simple element and then waits for its response**. Each of the '861 nodes, receiving the address request signal, further broadcasts the TARP request when neither managing nor normally communicating with the destination simple element, or sends a TARP response when the node is managing or normally communicating with the destination simple element. The '861 patent discusses that when the response is received from another node, the source node determines the destination address of the destination network element.[5]

However, it is respectfully submitted that the '861 patent fails to disclose transmitting the node notice packet from the peripheral node to the search node, in response to the node

[2] See Office Action dated June 10, 2009, page 4.
[3] See '861 patent, column 3, lines 40-46; also see Figure 1.
[4] Id. at column 3, lines 46-48.
[5] Id. at Abstract and column 4, lines 4-42.

notice request packet. Rather, as cited in the Office Action, the '861 patent simply discusses that when a node receives a TARP request packet from an adjacent node (step 801), a TARP signal processor 24 of the node checks whether a destination address included in a data field of the received TARP request packet is identical to the address of the node itself (step 802). **If the destination address is identical to its own address, the '861 TARP signal processor 24 of the node produces a TARP response packet and sends it back to the node which originated the TARP request packet (step 806).**[6] That is, the '861 patent discusses that an originating node (*i.e.*, the node that originated the TARP request packet) transmits a TARP request packet that includes an identifier of a destination node, and the destination node (*i.e.*, the node that corresponds to the destination address in the TARP request packet) transmits a TARP response packet in response to the TARP request.

The '861 patent does not disclose that the address of the destination node ***is not stored in the originating node***, as acknowledged in the Office Action (see above).[7] Thus, the '861 patent does not disclose transmitting the node notice packet from ***the peripheral node (the address of the peripheral node not being stored in the node storage unit of the search node)*** to the search node, ***in response to the node notice request packet***, as defined in Claim 1.

Further, it is respectfully submitted that the '566 and '706 patents fail to remedy the deficiencies of the '861 patent, as discussed above. The '566 patent is directed to routing and mobility management protocols for ad-hoc networks. Further, the '706 patent is directed to a method and apparatus for determining latency between multiple servers and a client. However, it is respectfully submitted that the '566 and '706 patents, alone or in proper combination, fail to disclose "transmitting the node notice packet," as defined in Claim 1.

Thus, no matter how the teachings of the '861, '566, and '706 patents are combined, the combination does not teach or suggest "transmitting the node notice packet," as defined in

[6] See '861 patent, column 6, lines 36-44.
[7] See Office Action dated June 10, 2009, page 15.

Claim 1. Accordingly, Applicants respectfully traverse the rejection of Claim 1 as being unpatentable over the '861, '566, and '706 patents.

Previously presented Claims 2, 15, and 16 recite limitations analogous to the limitations recited in Claim 1, although of differing class and/or scope. Accordingly, for reasons analogous to the reasons stated above for the patentability of Claim 1, Applicants respectfully traverse the rejections of Claims 2 and 15 (and all associated dependent claims) as being unpatentable over the '861, '566, and '706 patents, and the rejection of Claim 16 as being unpatentable over the '861 and '706 patents.

CONCLUSION

Thus, it is respectfully submitted that independent Claims 1, 2, 15, and 16 (and all associated dependent claims) patentably define over any proper combination of the '861, '566, and '706 patents.

Consequently, in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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